

Remarks

The instant Amendment is filed in response to the Office Action of May 21, 2007. Since the Amendment is filed within three months of the May 21, 2007 date, no extension fee is due and owing. However, additional fees are due for extra claims, and for additional independent claims, as reflected on the Amendment Transmittal form. Our check in the amount of \$700 is enclosed to satisfy these fees.

The new Declaration, drawn in compliance with 37 CFR 1.67(a), is enclosed.

Claims 61-99 are presented for consideration. Claims 61, 76, and 91 have been revised. Claims 92-99 have been added, including independent claims 92, 93, 94, 97, 98 and 99.

The Amendments to claims 61, 65, 67, 68, 76, 89 and 91 have been made to overcome the objections raised by the Examiner, and to maintain consistent terminology throughout the claims presently of record.

In particular, the independent method claim 61 has been amended to define that the concrete article comprises a “concrete path, slab or pavement” and that the crack promoting insert is cast within the concrete article “beneath said upper surface”. The claim further defines that the crack in the concrete article is formed along and extends from the insert. Corresponding amendments have been made to the apparatus claim 76.

Minor amendments have been proposed to claims 65, 67, 68, 80, and 89 so that these claims are now consistent with the terminology used in claims 61 and 76.

Claim 91 has been amended to define that the laser plane is established by a laser beam transmitter and that the laser receivers on the apparatus of the invention are adapted to be aligned with the laser plane.

The Examiner has stated that claims 70, 71, 80-83, 86 and 87 would be allowable if rewritten in independent form including all the limitations of the base claims and any intervening claims (note that the Office Action Summary appears to be incorrect as the Examiner in the summary has referred to claims 70, 71 and 81-84).

New claim 92 comprises a combination of claims 70, 68, 67 and 61 which the Examiner has indicated as allowable.

New claim 93 comprises a combination of claims 71, 69, 67 and 61 which the Examiner has indicated is allowable.

New claim 94 comprises a combination of claims 80, 79 and 76 which the Examiner has indicated is allowable.

Claims 95 and 96 are the same as claims 82 and 83 but are dependent upon claim 94 which the Examiner has indicated is allowable.

New claim 97 comprises a combination of claims 81, 79 and 76 which the Examiner has indicated is allowable.

New claim 98 comprises a combination of claims 86, 85, 84, 79 and 76 which the Examiner has indicated is allowable.

New claim 99 comprises a combination of claims 87, 85, 84, 79 and 76 which the Examiner has indicated is allowable.

With regards to the Examiner's rejections based on the prior art as applied on pages 2-4 of the Office Action, the following comments are provided pertaining to each cited reference.

Barenberg US Publication No. US 2004/0025858UB

The examiner asserted that Barenberg anticipated the invention as previously claimed in claims 61-63, 65-69, 72, 76, 79, 84 and 88-90. However, the claims of record have been amended to present patentable subject matter absent from Barenberg.

The present invention, as claimed in the amended independent claims 61 and 76, compromises a method, and apparatus, for forming a crack in the concrete article which compromises a concrete path, pavement or slab. The formation of a crack in the concrete article requires, as defined in the claims, the application of a force to the concrete article. Where the force is applied to the concrete article adjacent an insert cast within the article, a crack will be promoted along the insert. If no force is applied to the article, cracks may occur at various times in the concrete article due to concrete shrinkage which occurs over a period of many days, but cracking may not occur at all. Nor will crack formation, when occurring, be consistent throughout the article. In addition cracks when formed may have varying widths if, for example, some cracks are formed earlier than others as the concrete shrinks. This disadvantage is avoided in the present invention as the method and apparatus of the invention, as claimed, ensure that stress-relieving cracks are consistently formed in a concrete article.

Barenberg is concerned with inserting a narrow plastic strip 8 (an insert) into concrete prior to the final finish and in the top surface of the concrete (as opposed to the present invention

which is concerned with treating a concrete article prior to the treatment of the concrete article by application of a force to the article). The plastic film or strip is installed in fresh fluid concrete as referred to in paragraph 0031, lines 1 and 2. This step is undertaken during formation of the concrete article and is not a step taken in relation to a formed concrete article such as a slab, path or pavement, as now claimed in claims 61 and 76.

The plastics film in Barenberg is installed using a tool with a flat plate 10 which floats over the fresh concrete. A “film rotator housing 9” passes through the fresh concrete for insertion of the film concrete into the concrete. The fresh concrete separated by the housing 9 flows back against the sides of the installed film after removal of the housing 9. A vibrator may be used to help the rotator housing “get through the fresh concrete”. Quite clearly it would be impossible to use a “rotator housing 9” in a concrete article in which the concrete has set, such as in a slab, path or pavement.

The Examiner further states that Barenberg discloses a tool having a force applying member which is located above the insert and that the tool is caused to apply a force to the concrete article to promote the formation of a crack in the concrete article along the insert. There is no disclosure in Barenberg, however, that a crack is formed in the concrete by a tool. At most the tool (the rotator housing) separates the wet concrete to allow for placement of a plastic film. Any force applied by the apparatus of Barenberg is not for creating a crack in a concrete article extending along an insert, but for the purposes of penetrating wet concrete to allow placement of an insert.

Cook WO 2006/001713

The Examiner further stated that claims 77, 78 and 91 were unpatentable over the combination of Barenberg and Cook WO 2006/001713. The latter application discloses an insert for location in a slab to control cracking in a concrete article. The insert can be of T-shaped configuration. Connectors are provided to enable interconnection of inserts. Cook however does not disclose the application of a force to a concrete article to form a crack in the article. The combination of Barenberg and Cook therefore will not result in the invention, as expressed in the claims 64 and 73 to 75, which are dependent upon claim 61.

Cook US 6203112

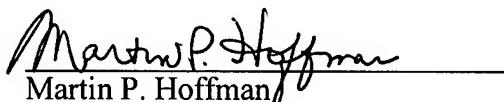
The Examiner further stated that claims 64 and 73 to 75 were unpatentable over the combination of Barenberg and Cook US 6203112. Cook discloses road cutting apparatus mounted to a skid-steerable machine. Steering of the machine is therefore effected by driving or not driving on or more wheels of the machine and not by steering of the wheels as claimed in claim 78 of the current application to allow for lateral movement of the machine. The laser guidance system used in Cook uses a laser on the machine to guide a cutting tool along a painted or chalk guide line. Cook does not carry laser receivers as defined in Claim 91 for alignment with a laser plane.

The crack forming apparatus of the present invention, as defined in claim 91, does not carry a laser to guide a tool along a guide line marked on the article to be cut as described in Cook. Instead, a laser plane is established by a laser beam transmitter. Claim 91 has been amended to make it clear that laser receivers are provided on the apparatus for alignment with a laser plane established by a laser transmitter to guide the apparatus.

The combination of Barenberg and Cook therefore will not result in the invention defined by claims 77,78 and 91.

In summary, claims 61-99, as presently constituted, define patentable subject matter neither anticipated, nor suggested, by the patents cited by the Examiner. The patentable aspects of applicant's invention have been recited, with varying degrees of specificity, in the claims of record. Prompt, and favourable, consideration of the instant Amendment is earnestly solicited.

Respectfully submitted,



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Date: August 7, 2007

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Attorney's Docket: A-9953.AMB/cat